



STATE OF MARYLAND

DMMH

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August 6, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:30 Reporting for the week ending 07/31/10 (MMWR Week #30)

CURRENT HOMELAND SECURITY THREAT LEVELS

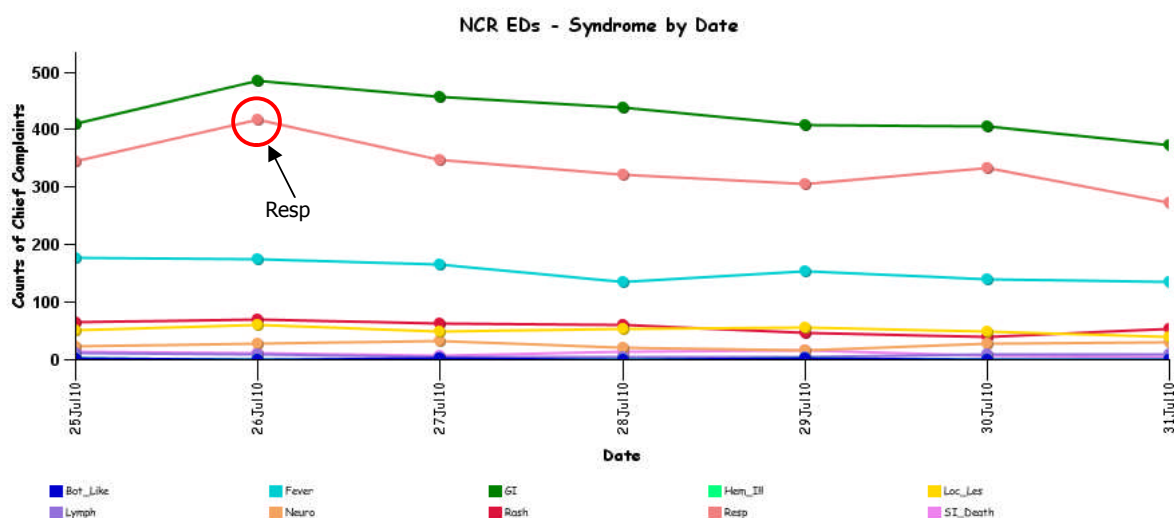
National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

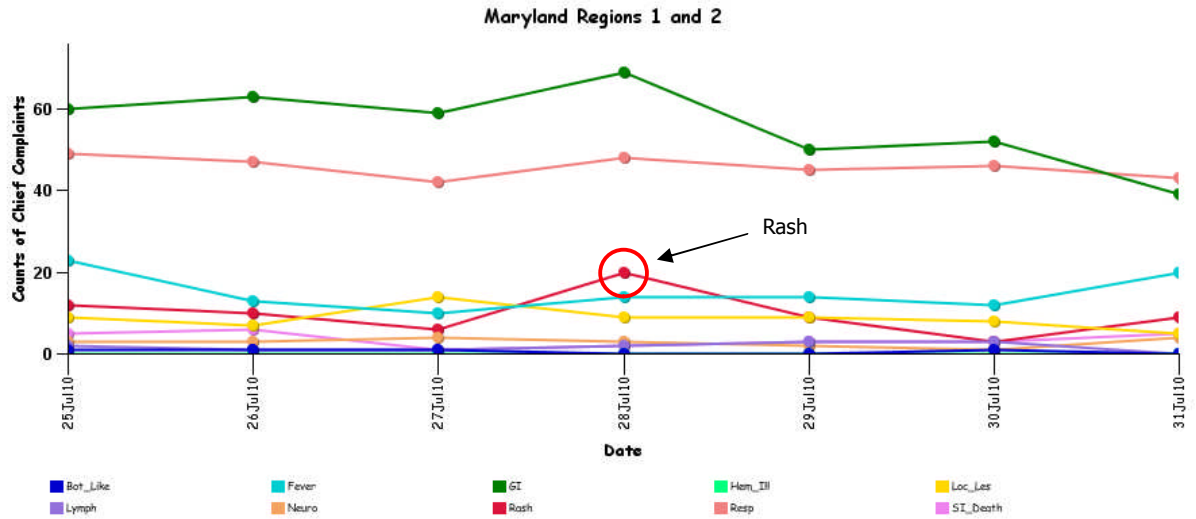
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

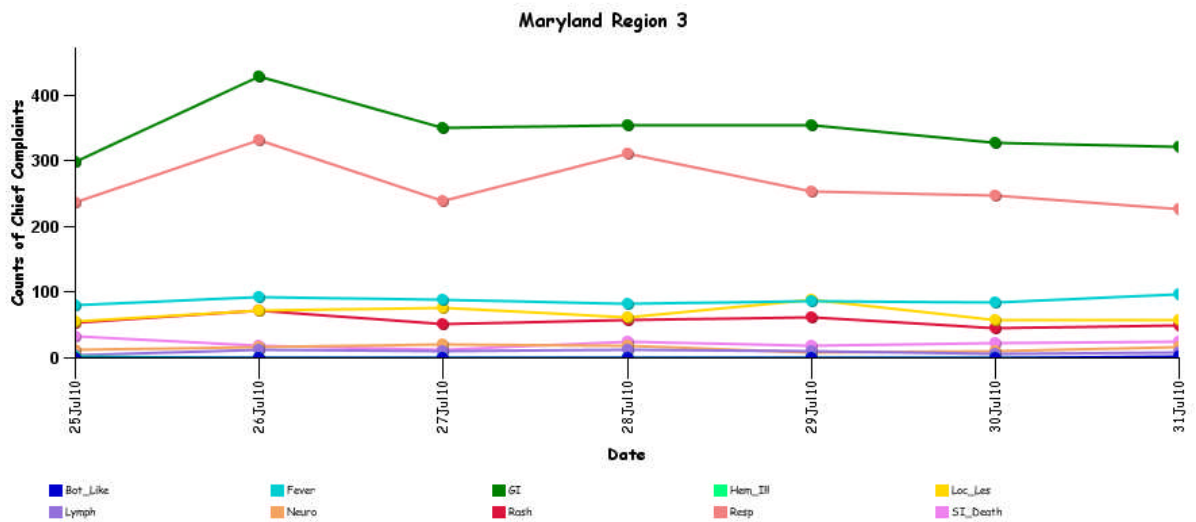


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

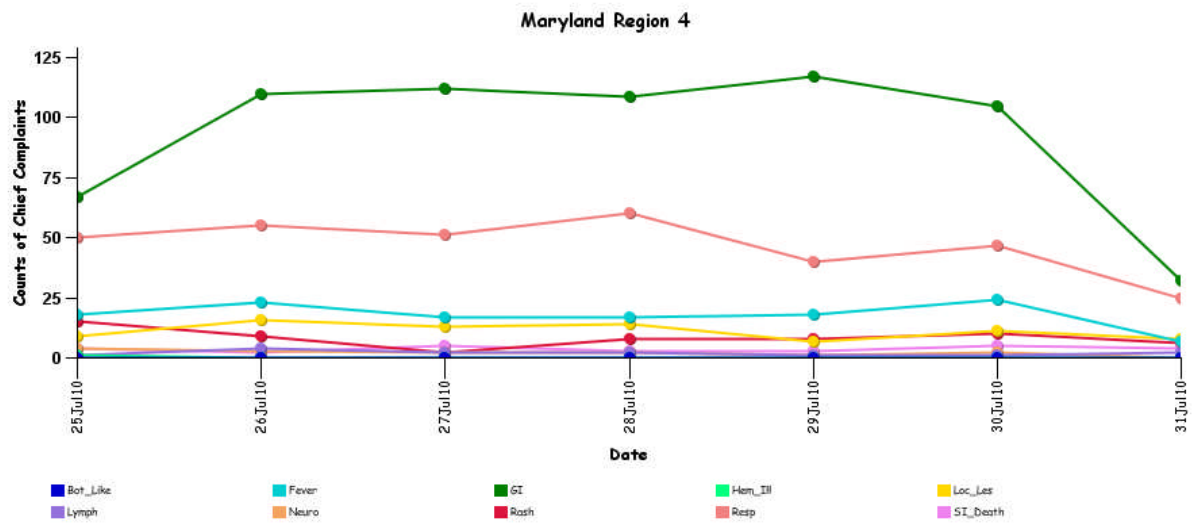
MARYLAND ESSENCE:



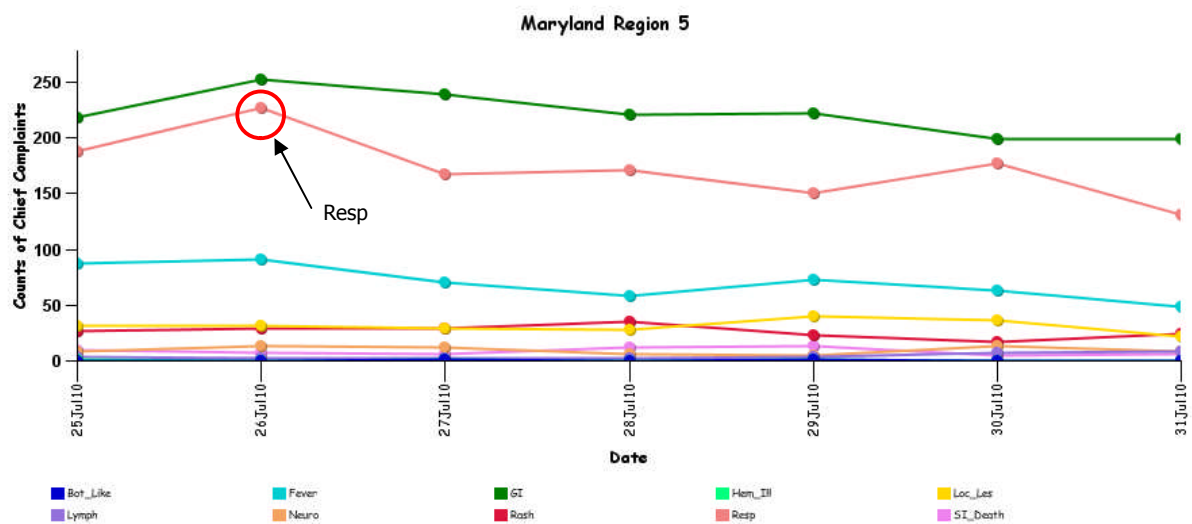
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

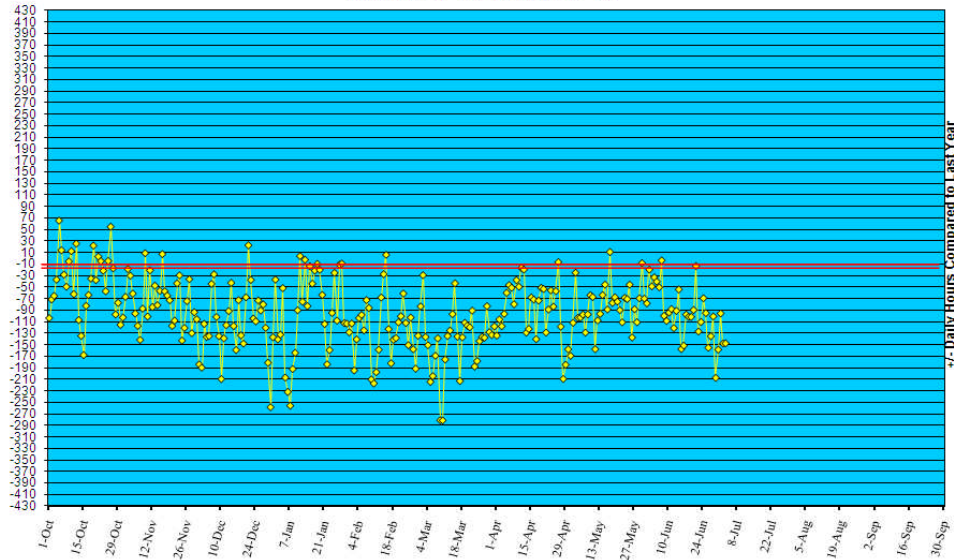


* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/09.

**Statewide Yellow Alert Comparison
Daily Historical Deviations
October 1, '09 to July 3, '10**



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in July 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

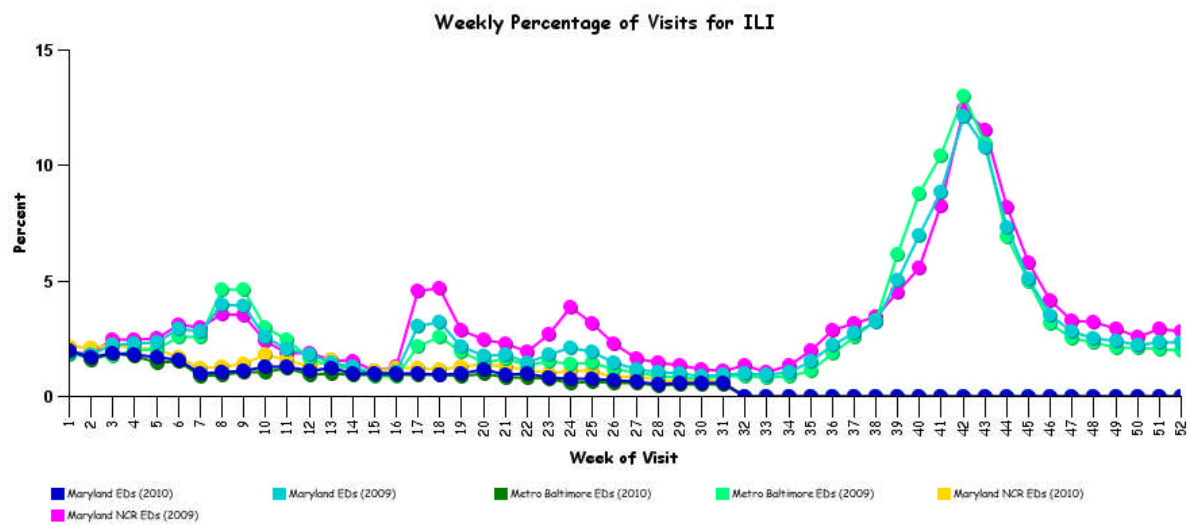
Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (July 25 – July 31, 2010):	08	0
Prior cases (July 18 - July 24, 2010):	18	0
Week#28, 2009 (July 26 – August 1, 2009):	19	0

0 outbreaks were reported to DHMH during MMWR week 29 (July 18-July 24, 2010)

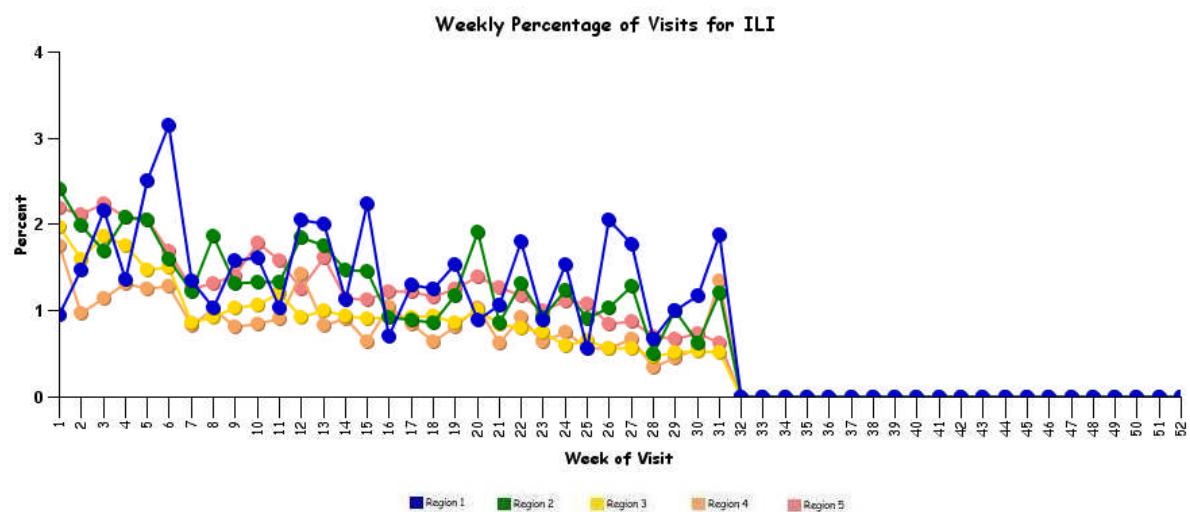
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



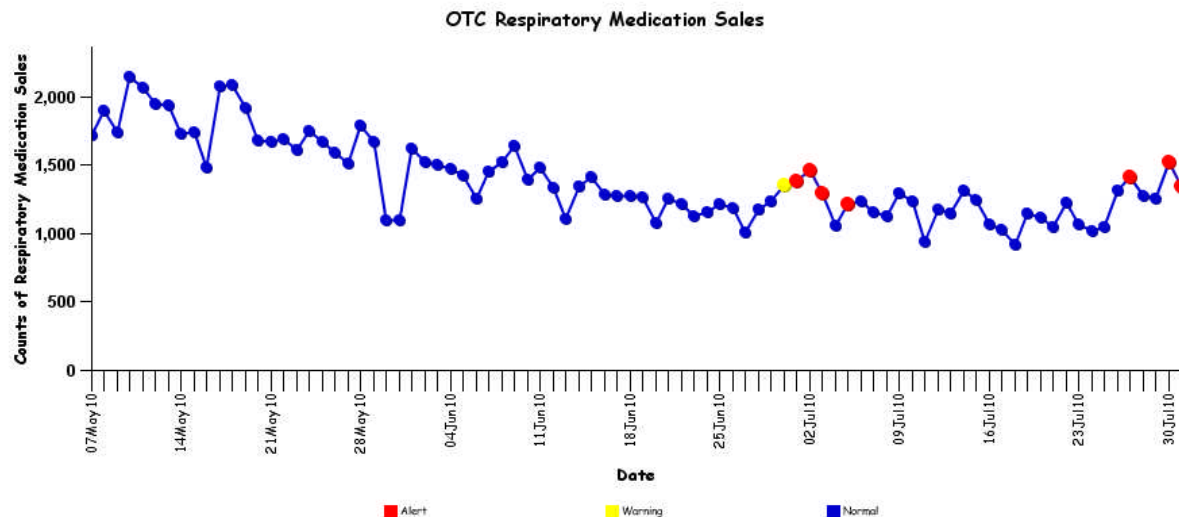
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



AVIAN INFLUENZA-RELATED REPORTS:

WHO update: The current WHO phase of pandemic alert for avian influenza is 3.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of July 29, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 502, of which 298 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC (H1N1) WORLD HEALTH ORGANIZATION UPDATE: 31 July 2010, As of 25 July 2010, worldwide more than 214 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including over 18 398 deaths. WHO is actively monitoring the progress of the pandemic through frequent consultations with the WHO Regional Offices and member states and through monitoring of multiple sources of information.

Worldwide, overall pandemic and seasonal influenza activity remains low. In the southern hemisphere (where the winter season is in progress), current influenza activity remains variable: ranging from low and stable activity in Chile and Argentina, to low but increasing activity in Australia and New Zealand, to elevated and recently peaked activity in South Africa. Significant seasonal and pandemic influenza virus transmission continues to be detected at variable levels across parts of the tropics, particularly in several countries of the Americas and South and Southeast Asia

In the southern hemisphere, overall influenza virus transmission remains low to sporadic, except in South Africa, where recent wintertime influenza activity appears to have peaked, and in Australia and New Zealand, where influenza activity remains low but continues to increase steadily, particularly in recent weeks. In South Africa, virologic data from outpatient sentinel surveillance suggest that the current period of influenza activity (primarily attributable to circulating seasonal influenza H3N2 and B viruses) began and rose sharply during early June 2010, with a likely peak and decline in activity occurring since the 1st week of July 2010.

Data on the full extent of severe illness associated with recent influenza activity are not yet available, however, early reports suggest the current influenza season has been generally mild in terms of levels of clinical disease in the population. In Australia, overall rates of ILI [influenza-like illness] remain low and have increased only slightly over the past 4 weeks (through the 2nd week of July 2010); however, of note, the number of viral respiratory disease presentations to the emergency departments in Western Australia increased more dramatically during the same period. Overall, the proportion of respiratory specimens testing positive for

influenza virus was 5 percent at sentinel laboratories across Australia, of which approximately two-thirds were pandemic influenza viruses and one-third were seasonal influenza H3N2 viruses; respiratory viruses other than influenza continue to predominate in several regions of Australia.

In New Zealand, rates of ILI are below the seasonal baseline but have increased steadily over the past month; recent reports suggest that more significant, but geographically uneven increases may have occurred during the 3rd week of July 2010. Although the number of influenza virus detections remains low, the majority of virus isolates in New Zealand have been pandemic influenza virus.

The most recent available virologic surveillance data (mid-July 2010) from Chile and Argentina indicate that very low levels of influenza viruses are currently circulating in the southern temperate regions of the Americas; the predominant circulating influenza viruses in Chile and Argentina are pandemic and seasonal influenza type B viruses, respectively. Recently data from Chile also indicate that overall levels of ILI in the population remain very low, except in the Los Lagos region, which has seen recent late season increases in levels of ILI slightly above the epidemic threshold.

In Asia, the most active areas of pandemic influenza virus transmission currently are in parts of India, particularly in several western and southern states. The majority of new cases continue to be reported in the southern state of Kerala and in the western state of Maharashtra, the latter reporting a sharp increase in the number of cases, including small numbers of fatal cases, between the 2nd and 3rd week of July 2010. Smaller numbers of new cases have also been recently reported in other southern states and in the eastern state of West Bengal. In neighboring Bangladesh, low level co-circulation of pandemic and seasonal influenza type B viruses continued to be detected over the month of July 2010.

In Southeast Asia, low levels of pandemic influenza virus circulation were detected in several countries during July 2010, including Cambodia, Singapore and Malaysia. Significant levels of seasonal influenza H3N2 viruses continued to circulate in Singapore.

In sub-Saharan Africa (excluding South Africa), limited data indicate that seasonal influenza H3N2 and B viruses continued to circulate in parts of eastern Africa (Kenya) and central Africa (Cameroon), respectively. Ghana, in West Africa, reported sustained transmission of pandemic influenza virus during June and early July 2010.

In the tropical regions of the Americas, active subregional co-circulation of seasonal and pandemic influenza viruses was detected during July 2010. Since early June 2010, predominantly seasonal influenza H3N2 viruses have circulated in Panama and Nicaragua; predominantly seasonal influenza B viruses in El Salvador and Bolivia; and predominantly pandemic influenza viruses in Costa Rica and Colombia. In the temperate regions of the Northern hemisphere, pandemic and seasonal influenza viruses have been detected only sporadically or at very low levels during the past month.

(Countries in temperate regions are defined as those north of the Tropic of Cancer or south of the Tropic of Capricorn, while countries in tropical regions are defined as those between these 2 latitudes.)

Resources:

<http://www.cdc.gov/h1n1flu/>

<http://www.dhmv.maryland.gov/swineflu/>

NATIONAL DISEASE REPORTS

EASTERN EQUINE ENCEPHALITIS (FLORIDA): 31 July 2010, A Brandon-area (Florida) infant has died from a rare and devastating disease transmitted by mosquitoes that causes inflammation of the brain, health officials said Thursday [29 Jul 2010]. It was the 2nd death in Hillsborough County this month [July 2010] from eastern equine encephalitis [EEE], prompting officials to issue a public health alert and step up mosquito spraying around the Tampa Bay area. Since no more than 5-10 cases of EEE are typically reported nationwide each year, and Florida's last reported death was in 2008, these back-to-back fatalities are highly unusual. The state recorded a 3rd EEE fatality this month, in the Panhandle's Wakulla County. There is no vaccine for the disease, which kills about 1/3 of those infected and disables others, so officials are urging people to protect themselves from mosquito bites. This summer could be the worst in years for the spread of mosquito-borne illnesses. There aren't more mosquitoes here than usual, officials say, but more of them are carrying diseases, posing greater health risks to the people they bite. Due to factors such as water levels and animal breeding patterns, mosquito-borne illnesses tend to rise and fall over time. After several quiet years, health experts are concerned that people have forgotten that these insects are not just a backyard nuisance. While mosquito-borne disease is generally rare in the United States, mosquitoes are the world's most dangerous animal, responsible for millions of cases of [arthropod-borne pathogens] worldwide. In response to the increased threats, Hillsborough's health department on Thursday placed the county under a "mosquito-borne illness alert." "You have to protect yourself," said Warren McDougale, manager of the Hillsborough Health Department's epidemiology program. "Every effort is being taken by mosquito control and all of the public health entities to do the surveillance on the disease, but individuals have to protect themselves against mosquitoes." It takes just one bite to get sick, he noted, though your chances of getting sick increase the more you are bitten. Last week, officials reported that a woman who lived in northern Hillsborough died on 1 Jul 2010 from an EEE [virus] infection. She likely was infected while

sitting outside her apartment building, officials say. The Brandon-area infant's cause of death was reported to the health department Wednesday 28 Jul [2010]; officials declined to share more information about the victims. People who spend a lot of time outdoors are at greater risk for EEE because they are exposed to more mosquitoes. The virus is transmitted to horses and humans by mosquitoes, which pick it up from birds. People can't infect each other, nor can they be infected by horses, which is where the virus was 1st detected. Because the disease is so rare in people, experts look to equine cases to help monitor the risk. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

ANTHRAX, HUMAN, LIVESTOCK (INDIA): 31 July 2010, At least 25 people, including 6 women and a child, have fallen ill with suspected anthrax contracted from dead animals in Orissa's Sundergarh district, health official said Friday [30 Jul 2010]. The people found with the infection are residents of Dukatola village and its nearby hamlets, some 500 km [310 mi] from state capital Bhubaneswar, chief district medical officer Bikrant Kindo told IANS. 'All of them are responding to treatment and recovering,' he said. About 2 days ago 2 residents of the area came to the hospital with anthrax symptoms. 'We sent health officials to the area and found more people having the similar symptoms,' he said. Health officials including doctors are camping [staying] in the area and treating the patients at their homes, he said. Blood samples of at least 5 patients were sent Friday [30 Jul 2010] to the Veer Surendra Sai (VSS) Medical college and Hospital at Burla in Sambalpur district, Kindo said. Dukatola village and its nearby hamlets have a population of about 500 and most of them belong to Oraon tribe. Kindo said the villagers told them they had consumed the meat of dead animals recently. Anthrax is a bacterial disease that mostly affects animals and spreads to humans through consumption of contaminated meat. Kindo said the district has a history of anthrax infections. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (KAZAKHSTAN): 31 July 2010, An outbreak of anthrax has been recorded in the Almaty region in late July [2010], revealing 4 [human] cases. As it turned out, several local residents neglected veterinary examination of an affected cow, the meat being sold. Currently, the veterinary services are carrying out investigations to discover the contaminated meat, which could reach the market near Almaty. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

YELLOW FEVER (COTE D'IVOIRE): 30 July 2010, Since 3 May 2010 an epidemic of yellow fever [YF] has killed 2 persons in Abidjan with at least 19 cases reported, said the Ivorian Minister of Health Aouel Aka, on Thursday [29 Jul 2010], when announcing a vaccination campaign. "Since May, cases of hemorrhagic fever [presumably YF] were registered in the health districts of Abidjan, Grand Bassam (near Abidjan, the economic capital) [Sud-Comoe region] and Bouake (center) [Vallee du Bandama region]," he said to the press. In Abidjan alone, 2 people have died from yellow fever, with 8 cases reported. A case of yellow fever has also been confirmed in Grand-Bassam. The Minister has not clarified the situation in Bouake, a town held by former rebels since the failed coup d'etat of 2002. "A vaccination campaign is due to start Friday [30 Jul 2010] in the 3 affected towns," he added. The last epidemic of yellow fever in Cote d'Ivoire was in December 2009, said a medical source, and it killed about 15 people. Yellow fever is transmitted to humans by the bite of a mosquito. (Viral hemorrhagic fever is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

JAPANESE ENCEPHALITIS AND OTHER (INDIA): 28 July 2010, The real cause of a deadly disease ravaging eastern Uttar Pradesh for the past 3 decades still remains a mystery. Despite claiming close to 100 lives up to Monday [26 Jul 2010], and with another 550 admitted in the hospitals, scientists and doctors are still groping in the dark over the identity of the viral strain. "We are sure about one thing, that it is not Japanese encephalitis virus. Only 11.71 per cent of the samples have tested positive for Japanese encephalitis virus, while the rest are still unknown," claimed director general (medical & health) Dr RR Bharti. When even the local unit of the National Institute of Virology (NIV) Pune, based in Gorakhpur, failed to arrive at any conclusion, Bharti requested the Union Health Ministry to intervene. A team of Union Health Ministry officials and scientists from the Indian Council of Medical Research (ICMR) -- along with Bharti and Dr SP Ram -- visited Gorakhpur on Saturday [24 Jul 2010]. However, they also failed to diagnose the viral strain causing deaths of children in the region. "At times, it shows symptoms of an enterovirus [meningitis?] but not uniformly, so we cannot arrive at any concrete conclusion," said Bharti. Meanwhile, the official daily bulletin at the State Health Directorate reported 94 deaths due to the mystery virus, with another 543 admitted to hospital. On the other hand, the State Human Rights Commission (SHRC) and nearly half a dozen public representatives have raised [questions] about the functioning of the Health Department. SHRC has sought explanation from the Health Department over the rising number of children's deaths in Gorakhpur region. "We have no answer about this disease, which is locally referred to as Japani bukhari. It is being called acute encephalitis syndrome (AES) by medical experts. We are just providing preventive measures taken by the department to the concerned authorities," said a senior health official. According to the figures at the Control Room in Lucknow, 543 children are suffering from AES as of Mon 26 Jul 2010. Another 94 have died, while 10 have tested positive for Japanese encephalitis virus infection. One child has died due to Japanese encephalitis in Gorakhpur also. Local health activist Dr RN Singh claimed that "The actual number of deaths have surpassed 100 in Gorakhpur region." State health officials have issued directives that the children be treated at the local health centre level. In a letter by Bharti, district health officials in Purvanchal have been directed to refer only serious cases to Baba Raghav Das Medical College in Gorakhpur. "When the medical college has failed to diagnose the disease, it is simply not possible that local health centres provide proper healthcare to these children," said RN Singh. Meanwhile, state health officials narrate their efforts in combating the Japanese encephalitis menace. A separate ward with 126 beds has been constructed at a cost of Rs 5.88 crore [USD 1.26 million]. Nearly 3.5 crore [35 million] children were vaccinated against Japanese encephalitis in 2009. An extensive awareness campaign has been launched in the region, with special emphasis on sanitation and cleanliness. . (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

Q FEVER (NETHERLANDS): 27 July 2010, So far this year (as of 21 Jun 2010), 421 reports of Q-fever [Qf] cases in humans have been registered (compared to 1796 in 2009). We know that 316 of them underwent the 1st day of illness during 2010. The Clb registered 5 people who reportedly died due to Qf during 2010. Qf deaths are not notifiable in the Netherlands, however reporting of chronic Qf infections and deaths at the LCI is necessary to get a good overview of any connection with Qf. A report form for this purpose can be downloaded at the RIVM web-site. 91 farms have been reported as Qf contaminated (detected by the bulk milk test) from December 2009 till 15 Jul 2010. In the 2 farms which have been found positive during the current (July 2010) month, no animals have been killed because none of the animals were pregnant [due to the breeding ban applied since Dec 2009]. Since all dairy goat and sheep farms in the Netherlands with more than 50 animals have been vaccinated, various veterinary requirements/measures could be discontinued. (Q Fever is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS (CANADA): 26 July 2010, Federal officials have called on the public to be cautious following a salmonella outbreak traced to a brand of headcheese [jellied meat]. Canada's public health agency said consumers should not eat Freybe brand headcheese, produced by G. Brandt Meat Packers in Mississauga, Ontario. 18 people have been reported sick after consuming the product in Ontario and British Columbia. Most of the cases have affected people over the age of 70. Two companies have recalled headcheese products, although only the Freybe brand is linked to the illnesses. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

BRUCELLOSIS, CAPRINE, HUMAN (MALAYSIA): 25 July 2010, Penang is conducting checks on goat milk suppliers and has culled 98 of the animals after a 7-year-old boy became the 1st person to be infected with brucellosis [see comment]. Brucellosis is caused by the *Brucella* bacterium and is a disease mainly found in cattle, swine, goats and sheep. The boy fell sick after drinking raw goat's milk. He was admitted to a private hospital after coming down with fever on 24 Apr 2010, said state exco member Phee Boon Poh. He was transferred to the Penang Hospital several days later after failing to respond to the antibiotics given. Also called Bang's disease, or undulant fever, brucellosis is a highly contagious disease caused by ingestion of unsterilised milk or meat from infected animals, or close contact with their secretions. It causes flu-like symptoms, muscle pain and swollen glands, and can result in complications like bone and joint lesions, encephalitis, meningitis and chronic fatigue syndrome. Phee said that following the incident, the state Veterinary Services Department began conducting checks on milk suppliers. "We hope suppliers from Kulim, Kuala Ketil and Lunas will heed the department's advice to prevent the spread of the disease," he said. Phee said the department had so far tested 3243 serum samples of goats from 11 farms in the state. "98 of the goats were culled after the test results came in positive," he said. He said the owners of the culled goats were paid compensation of RM 5.60 [USD 1.65] per kilo. Phee advised the public to boil milk before drinking. He also urged those selling mutton, including for the coming fasting month, to ensure the meat was free from the disease. "An awareness campaign will be held on 27 Jul 2010 by the various government departments and the municipal councils," he said. (Brucellosis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmh.maryland.gov/>

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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